

WHAT IS CLAIMED IS:

1. A camera lens system for image pickup devices, comprising:

5 a first group lens having a convex, aspheric surface facing an object;

a second group lens on which a light beam is incident from the first group lens and which is formed in an aspheric shape;

10 an iris disposed at a side of the first group lens close to the object;

a filter disposed at a side of the second group lens close to an image of the object; and

15 an image sensor for converting the image formed through the first and second group lenses into an electrical signal,

wherein the camera lens system satisfies the following conditions,

$$(1) 4.7 \leq f_1 \leq 4.9$$

$$(2) 23 \leq f_2 \leq 24$$

20 (3) $3.8 \leq f \leq 4.0$

where f_1 is a focal length (mm) of the first group lens, f_2 is a focal length (mm) of the second group lens, and f is an overall focal length (mm) of the camera lens system.

25 2. The camera lens system for image pickup devices

according to claim 1, wherein the camera lens system satisfies the following condition,

(4) $4.8 \leq L \leq 4.9$

where L is an overall length (mm) of the camera lens system.

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3. The camera lens system for image pickup devices according to claim 1 or 2, wherein the first and second group lenses are designed so that radiiuses of curvatures thereof satisfy the following conditions,

10 (5) $1.33 \leq r_1 \leq 1.35$

(6) $1.9 \leq r_2 \leq 2.1$

(7) $2.64 \leq r_3 \leq 2.66$

(8) $2.87 \leq r_4 \leq 2.89$

where r_1 is a radius of curvature (mm) of a surface of the 15 first group lens facing the object, r_2 is a radius of curvature (mm) of a surface of the first group lens facing the image, r_3 is a radius of curvature (mm) of a surface of the second group lens facing the object, and r_4 is a radius of curvature (mm) of a surface of the second group lens facing 20 the image.

4. The camera lens system for image pickup devices according to claim 3, wherein the camera lens system satisfies the following conditions,

25 (9) $0.05 \leq S_1 \leq 0.15$

(10) $0.94 \leq S2 \leq 0.96$
 (11) $1.2 \leq S3 \leq 1.4$
 (12) $1.0 \leq S4 \leq 1.2$
 (13) $0.3 \leq S5 \leq 0.5$
 5 (14) $0.5 \leq S6 \leq 0.6$
 (15) $0.4 \leq S7 \leq 0.5$

where $S1$ is a distance (mm) between the iris and the surface of the first group lens facing the object, $S2$ is a central thickness (mm) of the first group lens, $S3$ is a distance (mm) between the first and second group lenses, $S4$ is a central thickness (mm) of the second group lens, $S5$ is a distance (mm) between the surface of the second group lens facing the image and the filter, $S6$ is a thickness (mm) of the filter, and $S7$ is a distance between the filter and the image sensor.

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5. The camera lens system for image pickup devices according to claim 4, wherein the camera lens system is designed so that, if K , A , B , C , D and E are aspheric coefficients, shapes of aspheric surfaces of the first and 20 second group lenses, expressed by equation

$$Z = \frac{\frac{h^2}{r}}{1 + \sqrt{1 - (1 + K) \times \frac{h^2}{r^2}}} + A \times h^4 + B \times h^6 + C \times h^8 + D \times h^{10} + E \times h^{12}, \text{ satisfy conditions}$$

indicated in the following Table,

No	K	A	B	C	D	E
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2	-3.46	0.17735E+00	0.39590E-02	-0.1610E+00	0.3114E+00	-0.1833E+00
3	1.5045E+00	1.3898E-01	-1.6119E-01	4.0606E-01	-2.241E-01	
4	-293.436995	0.15454E+00	-0.2778E+00	0.20857E+00	-0.78496E-01	0.11370E-01
5	-389.03712	0.72780E-01	-0.92636E-01	0.40519E-01	-0.87947E-02	0.69212E-03

where No. 2 is the surface of the first group lens facing the object, No. 3 is the surface thereof facing the image, No. 4 is the surface of the second group lens facing the object, and 5 is the surface thereof facing the image.